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- (71) Applicant (for all designated States except US): OTIS EL-EVATOR COMPANY [US/US]; Ten Farm Springs Road, Farmington, CT 06032 (US).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): VERONESI, William, A. [US/US]; 342 Fairfield Ave., Hartford, CT 06114 (US). HOOTSMAN, Norbert [US/US]; 154 Great Pond Road, South Glastonbury, CT 06073 (US).
- (74) Agent: GASKEY, David, J.; Carlson, Gaskey & Olds, 400W. Maple Rd., Suite 350, Birmingham, MI 48009 (US).

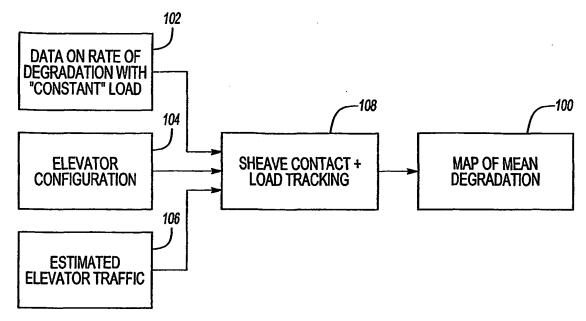
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#### **Declaration under Rule 4.17:**

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[Continued on next page]

(54) Title: TENSILE SUPPORT STRENGTH MEASUREMENT SYSTEM AND METHOD



(57) Abstract: A method and system determines probable strength degradation in a tensile support in an elevator system by monitoring an electrical characteristic of the tensile support as a whole, such as the total electrical resistance of the tensile support, that varies as the remaining strength in the tensile support varies. One example system determines a relationship between strength degradation and various physical factors, such as the rate of degradation for a given load (102), operating environment information for the tensile support (104), and estimated usage data (106), to obtain a map of mean degradation (100). This map of mean degradation (100) is then used to generate one or more maps linking the strength degradation and electrical characteristic.

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